



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,616	03/14/2001	Jukka Immonen	810-010249-US(PAR)	4556
2512	7590	10/20/2004	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			ESCALANTE, OVIDIO	
			ART UNIT	PAPER NUMBER
			2645	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/808,616

Applicant(s)

IMMONEN ET AL.

Examiner

Ovidio Escalante

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 12 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is in response to applicant's amendment filed on July 12, 2004. **Claims 1-20** are now pending in the present application.

#### *Claim Objections*

2. Claims 12 and 15 are objected to because of the following informalities:

In claim 12, there is an obvious typographical error with "claim 10".

In claim 15, there is an obvious typographical error with "claim !4" Appropriate correction is required.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8,10-11,14-17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizell et al. US Patent Pub. 2002/0077097.

**Regarding claim 1**, Mizell teaches a method for assigning values of service attributes (value of Quality of Service (QoS)) to transmissions between a user equipment (mobile terminal) and a radio access network, (paragraph 0032), comprising:

upon request of such a transmission by a user equipment of a subscriber registered with some radio access network (paragraph 0032) determining values of service attributes to be used for the transmission requested by said user equipment based on at least one value of at least one

Art Unit: 2645

service attribute defined by a stored subscriber specific service profile, (paragraphs 0032,0041 and 0042; the subscriber profile which comprises a subscription plan categorizes their quality of service plan), and

based on at least one stored common value of at least one service attribute, (paragraphs 0032 and 0038; The SGSN stores a common quality of service value which bases the values as the type of communication). Mizell teaches in paragraph 0042 that any or all of the factors which includes using a combination of profile and transmission type can be used to assign QoS values.

***Regarding claim 2***, Mizell, as applied to claim 1, teaches wherein the values of service attributes to be used for the requested transmission are determined further based on values of service attributes requested by the user equipment, (paragraph 0041).

***Regarding claim 3***, Mizell, as applied to claim 1, teaches wherein the values of service attributes defined by a subscriber specific service profile stored in the first storing means (HLR; paragraphs 0034 and 0041; subscriber profiles are stored in the HLRs) and the values of service attributes stored in the second storing means (SGSN) define the Quality of Service of a transmission, (paragraphs 0038 and 0040).

***Regarding claim 4***, Mizell, as applied to claim 1, teaches wherein the values of service attributes defined by a subscriber specific service profile stored in the first storing means define the best values allowed for the service attributes for at least one kind of transmission as subscribed by the corresponding user equipment, (paragraphs 0040 and 0041). The “best” value is chosen since Mizell teaches that the QoS rating is picked based on the type of call, hence the

QoS for each type is determined to be the “best” suitable Quality for at least each type of transmission.

**Regarding claim 5**, Mizell, as applied to claim 1, teaches wherein the values of service attributes defined by a subscriber specific service profile stored in the first storing means comprise the values of service attributes defining the Quality of Service for requested real-time-traffic (voice) transmissions, (paragraphs 0040 and 0041).

**Regarding claim 6**, Mizell, as applied to claim 1, teaches wherein the values of service attributes defined by a subscriber specific service profile stored in the first storing means comprise the values of at least one service attribute defining at least part of the Quality of Service for requested non-real-time-traffic (data) transmissions, (paragraph 0041).

**Regarding claim 7**, Mizell, as applied to claim 1, teaches wherein the common values of service attributes stored in the second storing means comprise at least one default value for at least one service attribute to be used in case a user equipment requests a transmission without requesting a specific value for said at least one service attribute required for the requested transmission, (paragraphs 0038 and 0040-0043). Mizell teaches of using several factors including having the service value be decided based on the transmission type as determined by the SGSN and not the user terminal.

**Regarding claim 8**, Mizell, as applied to claim 1, teaches wherein said first and said second storing means are part of the same radio access network, (fig. 4; Mizell teaches that different combination of radio networks can be used. Mizell further teaches of having the first and second storing means in the same or different networks based upon the location of the

Art Unit: 2645

caller). Mizell teaches that profile information is stored in the HLR (0034) and that the second storage means (memory SGSN) is both part of the same network as shown in figure 4.

**Regarding claim 10**, Mizell, as applied to claim 1, teaches wherein said first storing means (HLR) are part of a first radio access network, (paragraphs 0029,0030 and 0034), wherein said second storing means (SGSN) are part of a second radio access network, (paragraph 0031), said first radio access network being a network for which a user equipment requesting a transmission is registered (paragraph 0040) and said second radio access network being accessed by said user equipment for requesting the transmission, (paragraphs 0032 and 0040). Based upon the location of the user's HLR, the first and second storage means can be in different networks.

**Regarding claim 11**, Mizell, as applied to claim 10, teaches transmitting the values of service attributes defined by a subscriber specific service profile stored in the first storing means from said first radio access network to said second radio access network during an authentication of said user equipment accessing said second network, (paragraphs 0031 and 0040-0042).

**Regarding claim 14**, Mizell teaches a radio access network (fig. 1) comprising:

first storing means (HLR) for storing subscriber specific service profiles defining values of at least one service attribute (value of Quality of Service) that can be assigned to at least one kind of transmission, (paragraphs 0034 and 0041);

second storing means (SGSN) for storing at least one common value of at least one service attribute that can be assigned to at least one kind of transmission, (paragraph 0038 and 0040); and

Art Unit: 2645

processing means for determining values of service attributes to be used for a transmission requested by a user equipment of a subscriber registered with said radio access network based on at least one of the values of the service attributes defined by a corresponding subscriber specific service profile stored in the first storing means and on common values of service attributes stored in the second storing means, (paragraphs 0032,0038,0041 and 0042). Mizell teaches in paragraph 0042 that any or all of the factors which includes using a combination of profile and transmission type can be used to assign QoS values.

**Regarding claim 15**, Mizell, as applied to claim 14, teaches wherein said radio access network is a cellular network, wherein said first storing means are integrated in a home location register or home subscriber server (HLR/HSS) of said cellular network and wherein said second storing means are integrated in a serving gateway support node (SGSN) of said cellular network, (fig. 1; paragraphs 0030 and 0031).

**Regarding claim 16**, Mizell teaches a network element of a radio access network, (fig. 1), comprising:

storing means (SGSN) for storing at least one common value of at least one service attribute that can be assigned to at least one kind of transmission, (paragraphs 0038 and 0040); and

processing means for determining values of service attributes to be used for a transmission requested by a user equipment of a subscriber registered with said radio access network based on said common values of service attributes stored in said storing means, (paragraphs 0032 and 0038) and

Art Unit: 2645

based on values of service attributes defined by a subscriber specific service profile stored in some other storing means, (HLR), (paragraphs 0034, 0041 and 0042). Mizell teaches in paragraph 0042 that any or all of the factors which includes using a combination of profile and transmission type can be used to assign QoS values.

***Regarding claims 17 and 20***, Mizell teaches a radio access network and a network element of a radio access network in which a user equipment of a subscriber registered with some other radio access network is allowed to request a transmission, (abstract), comprising:

storing means for storing at least one common value of at least one service attribute that can be assigned to at least one kind of transmission, (paragraphs 0038 and 0040);

processing means for determining values of service attributes to be used for a transmission requested by said user equipment based on values of service attributes defined by a subscriber specific service profile received from the other radio access network (paragraphs 0034 and 0041) and on said common values of service attributes stored in said storing means, (paragraphs 0031 and 0038). Mizell teaches in paragraph 0042 that any or all of the factors which includes using a combination of profile and transmission type can be used to assign QoS values.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Art Unit: 2645

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 9,13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizell in view of Almgren et al. US Patent 6,668,175.

**Regarding claims 9,13 and 19**, Mizell, as applied to claims 8,10 and 17 teaches of using a wireless network and GPRS. Mizell does not specifically teach wherein said radio access network is a UMTS radio communications network or wherein said second radio access network is a wireless local area network (WLAN).

In the same field of endeavor, Almgren teaches wherein that it was well known in the art to have a radio network comprising UMTS or WLAN, (col. 3, lines 35-44; col. 4, lines 49-57;

Art Unit: 2645

col. 16, lines 51-57) and of using a public access controller of said wireless local area network (col. 4, lines 49-57; col. 16, lines 51-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless network of Mizell by using UMTS or WLAN as taught by Almgren so that radio access bearer service negotiation process or packet data traffic can be used.

***Allowable Subject Matter***

9. Claims 12 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

10. Applicant's arguments filed July 12, 2004 have been fully considered but they are not persuasive.

***Regarding claims 1,14,16,17 and 20***, Applicant contends that Mizell does not shown selection of the value of each employed service attribute individually based on the available subscribed values and the available common values and that Mizell does not allow consideration of interdependencies or possible conflicts between subscribed values and e.g. common values stored for a requested type of transmission. The Examiner respectfully disagrees.

As shown in the office action, Mizell teaches of using a combination of common values and subscribed values. Mizell, for example, teaches in paragraph 0041 that the rating can be at least one of the following:

Art Unit: 2645

exclusively be a function of whether the call being processed is a voice call or a data call;  
or

a function of the mobile station ID as well as the type of call being placed; or  
a function of requested quality of service by the mobile terminal; or  
exclusively due to a subscriber plan that categories the mobile terminal's quality of  
service rating.

Mizell further teaches that based on any or all of the above factors the rating for the  
mobile terminal can be assigned as shown in paragraph 0042. Therefore, Mizell considers the use  
of a combination of common values and subscribed values.

***Regarding claim 4***, Applicant contends that Mizell does not indicate that "best value"  
allowed for a transmission. The Examiner respectfully disagrees.

Mizell, clearly teaches that based upon certain condition such as the type of call the  
rating/value is selected. Clearly, given the teaching that Mizell using higher quality of service of  
voice and lower quality of data shows that the best value is chosen for the type of transmission  
used. Therefore, the Examiner believes that Mizell does indicated the best value.

***Regarding claims 5 and 6***, Applicant contends that Mizell does not mention that the  
subscription plan defines the QoS for a specific kind of transmission for real-time traffic or on-  
real time traffic. The Examiner respectfully disagrees.

The Examiner has taken the position that real time traffic reads on voice and non-real  
time traffic reads on data. Since Mizell teaches that high quality is used for voice and lower  
quality is used for data then Mizell clearly teaches at least that a specific QoS rating is selected  
based on the transmission type.

Art Unit: 2645

**Regarding claim 7**, Applicant contends that Mizell does not mention a default value. The Examiner respectfully disagrees.

Mizell teaches of using values that is determined by the SGSN therefore, those values are “default” values since they are not changed.

**Regarding claims 8 and 15**, Applicant contends that Mizell does not teaches where the common values and the subscription plan are stored. The Examiner respectfully disagrees.

Mizell clearly teaches as shown in the office action that the profile and thus ratings are stored in the HLR and/or the database of the SGSN.

**Regarding claims 9 and 19**, Arguments are moot in view of new ground of rejection.

**Regarding claim 10**, Applicant contends that it does not become apparent for the cited paragraphs that a HLR can be part of a first radio access network and the SGSN be part of a second radio aced network. The Examiner respectfully disagrees.

Based upon the figures of Mizell alone one would see that the HLR which stored the profile of the user can be in the same or different radio access network based upon the location of the user.

**Regarding claim 11**, Applicant contends that an authentication is not mention explicitly in the cited paragraphs. The Examiner respectfully disagrees.

Mizell clearly teaches in at least paragraph 0040 that the mobile terminal must be registered when the mobile network detects the mobile terminal’s presence, and thus the mobile terminal is authenticated in the network.

**Regarding claim 12 and 18**, Applicant arguments are persuasive and thus the rejection to claims 12 and 18 have been dropped.

Art Unit: 2645

***Conclusion***

11. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

(703) 872-9306, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to:

220 20<sup>th</sup> Street S.  
Crystal Plaza two, Lobby, Room 1B03  
Arlington, VA 22202

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ovidio Escalante whose telephone number is 703-308-6262. The examiner can normally be reached on M-F (6:30AM - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan S Tsang can be reached on 703-305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 2645

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**OVIDIO ESCALANTE  
PATENT EXAMINER**

*Ovidio Escalante*

Ovidio Escalante  
Examiner  
Group 2645  
October 14, 2004

O.E./oe